



(43) International Publication Date
18 September 2003 (18.09.2003)

PCT

(10) International Publication Number
WO 03/075991 A1

(51) International Patent Classification⁷: **A61M 16/00**

(21) International Application Number: **PCT/IB03/01422**

(22) International Filing Date: **10 March 2003 (10.03.2003)**

(25) Filing Language: **English**

(26) Publication Language: **English**

(30) Priority Data:
60/362,441 **8 March 2002 (08.03.2002)** **US**

(71) Applicant (for all designated States except US): **KAERY'S S.A. [FR/FR]; 50, Boulevard Stalingrad, F-06300 Nice (FR).**

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DELACHE, Alain [FR/FR]; 15, avenue de la Roseaie, F-06300 Nice (FR).**
DELACHE, Véronique [FR/FR]; 15, avenue de la Roseaie, F-06300 Nice (FR).

(74) Agent: **BONNEAU, Gerard**; Cabinet Bonneau, Les Taissonnières HB3, 1681, route des Dolines, F-06560 Sophia Antipolis (FR).

(81) Designated States (national): **AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.**

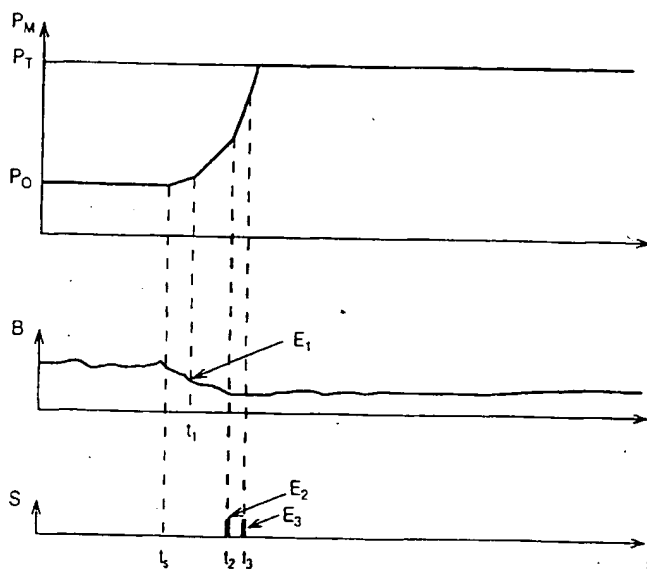
(84) Designated States (regional): **ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).**

Published:

— with international search report

[Continued on next page]

(54) Title: **APPARATUS TO ASSIST A PATIENT'S BREATHING WITH A VARIABLE RAMP PERIOD TO RISE TO TREATMENT PRESSURE**



(57) Abstract: The invention concerns an apparatus (1) to assist a patient respiration by delivering air to a patient through a mask (20), comprising wherein a ramp module (10) connected to a control unit (2) in order to provide the control unit with the value of pressure P_M to settle at said mask (20), so that when said apparatus (1) starts functioning, the pressure progressively rises until the pressure of treatment P_T the apparatus (1) further comprising a comparator connected to the ramp module (10), at least one means for detecting the patient's breathing parameters and sending them to said comparator, so that the comparator is able to determine that an event (E_1 , E_2 or E_3) occurs in patient's breathing and to send the corresponding data to the ramp module (10) which provides the control unit (2) with a value of pressure P_M that will speed up with respect of time, so that the rise of pressure at patient's mask (20) is accelerated.

BEST AVAILABLE COPY